CONSUMPTIVE USE RATES FOR ALFALFA

SANTA FE FIELD OFFICE

			~ ~ 41	
AREA	NORTH	05	これのノロ	

	CU - IN./DAY			CIR - IN/DAY			ACIR - IN/DAY		
)NTH	PEAK	MEAN	LOW	PEAK	MEAN	LOW	PEAK	MEAN	LOW
\PRIL									
1AY	./8	.15	.06	.14	.12	.05	-17	.14	.06
JUNE	.28	.23	.09	.25	.2/	.08	.26	.22	.69
JULY	3Z	.27	.11	.28	.23	.09	.30	.25	.10
AUG.	.28	.23	.09	.22	.18	.07	.25	.21	80.
SEPT.	.16	./3	.05	.12	./0	.04	.14	.12	.05
OCT.	./0	.08	.03	.06	.05	.02	.08	.07	.ი⊇

Consumptive use studies conducted on alfalfa at Fort Sumner, Portales, and Lovington by the SCS have given us a refined data base on which to make consumptive use computations.

Alfalfa, cut for hay once a month during the growing season, has a variable daily consumptive use rate which reaches a peak value just prior to cutting and a low value which occurs immediately after cutting.

To obtain a consumptive use value for planning or sizing a system, the mean value shown in the table should be used.

For irrigation depth and frequency determinations, the peak daily value is approximately 1.2 times the mean value, while the low value of daily consumptive use is approximately .4 times the mean daily value.

Alfalfa grown for seed production will have a consumptive use value equal to the peak value during full cover until the middle of full bloom.

As irrigation pumping costs have increased, and many water supplies have dwindled, nany alfalfa hay growers are aiming not at maximum hay production per acre, but rather at a maximum hay production per acre-inch of water applied. In areas where this is the grower's objective, a planning or sizing value of .85 to .9 times the nean is applicable to a system devoted to alfalfa hay.

The yearly volumes shown for CU, CIR, and ACIR are calculated using the mean value.

(Over)

YEARLY VOLUME AT 100% EFFICIENCY						
CU	CIR	ACIR				
25.8"	21.2"	23.5"				

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		CONSUMPTI	VE USE R	EQUIREMEN	TS	C	.C. 70	15-21
	· -	:	for				3	/8/
· ·		S	ANTA	FE	Fi	eld Offic		•
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7.7				4. 4		_	R.	IR
СКОР	 ≡	-		~~		TOTAL CU	TOTAL CIR "/YR	TOTAL ACIR "/YR
C. C.	MONTH	ವಿ≱	CIR //DAY	ACIR //DAY		AT.	E E	AT.
		=	=			T(۲	12
İrrigated	April					21.9	17.3	19.6
Pasture	May	.12	.10	.//	1.0	2 -		
	June	./8	.16	617				
	July	.22	.18	.20				
•	Aug.	.19	. 14	•17				
	Sept.	.12	.10	• 1/				
	Oct.	.07	.04	.06				
							: '	
The consur	ptive us	of irric	ated pas	ture fol	ows the	ame gene	ral fluct	uations
during the are due to	growing	season as	those s	hown for	alfalfa,	except t	hat these	changes
intensity these flu	can vary	greatly	rom farm	to farm	no atte	pt has b	ene grazi een made.	ng to plot
these fluc yearly va	tuations	Therefo	re, the	above dat	a reflect	s the me	an monthl	y or
					ga oca pa	- ture:		
SWEET	JUNE	o //	.09	.10		19.8	15.7	17.8
	2024	. 22	-/8	.20				
	AUG.		.19	. 22				
	8	.16	./3	.15				
							1	
VEG.	may	.06	.03	.05		17.9	/3./	15.5
	Sune.	.11	.09	.10				
	3024	.20	.16	. / 9				
	AUG.	./8	./3	.16				
	SEFT.	.11	.08	.10				
								
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U. S. DEPARTMENT OF AGRICULTURE SOIL CONSERVATION SERVICE

Tabular Computations

			SOIL CON	ISERVATIO	N SERVICE			
		CONSUMPTI	VE USE R	EQUIREMEN	TS	C. C.	70-3	2./
	<u>-</u>		for			-1	3/	8/
-			SAN	TA F	r∉ Fi	eld Offic	ce	•
	*	ARE	A No	ORTH.	of S	SAMTA		
	1			1	·			
CROP	MONTH	CU "/DAY	CIR "/DAY	ACIR "/DAY		TOTAL CU "/YR	TOTAL CIR "/YR	TOTAL ACIR "/YR
SPRING SMALL GRAINS	mAY	.09	.06	.08		17.4	13.9	15.7
	JUNE	. 26	.24	.25				
	JULY	. 24	.20	.22				
	AUG.	. 1/	.06	.08				
ORCHARD								
W/COVER	MAY	.16	./3	./5		27.4	22.6	25.0
	JUNE	.24	.22	.23		·		
	JULY	.28	.24	.26				
	AUG.	.24	.19	.22		•		
	SEPT.	.14	•1/	. 13			:	
A12.	OCT.	-08	.05	.07	Light Indian		Li Lière , job , j	tar garage
ORCHARD WO/CWER		.13	./0	./2		21.3	16.5	18.9
	JUNE	.20	. /8	.19				
	JULY	.24	.20	.22				
	AUG.	. 18	./3	.15				
	SEPT.	.09	.06	.08				
	OCT.	.03	.01	,o2				
	T			1	1		1	